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SCIAA ARCHAEOLOGISTS EXCAVATE FISHING VESSEL

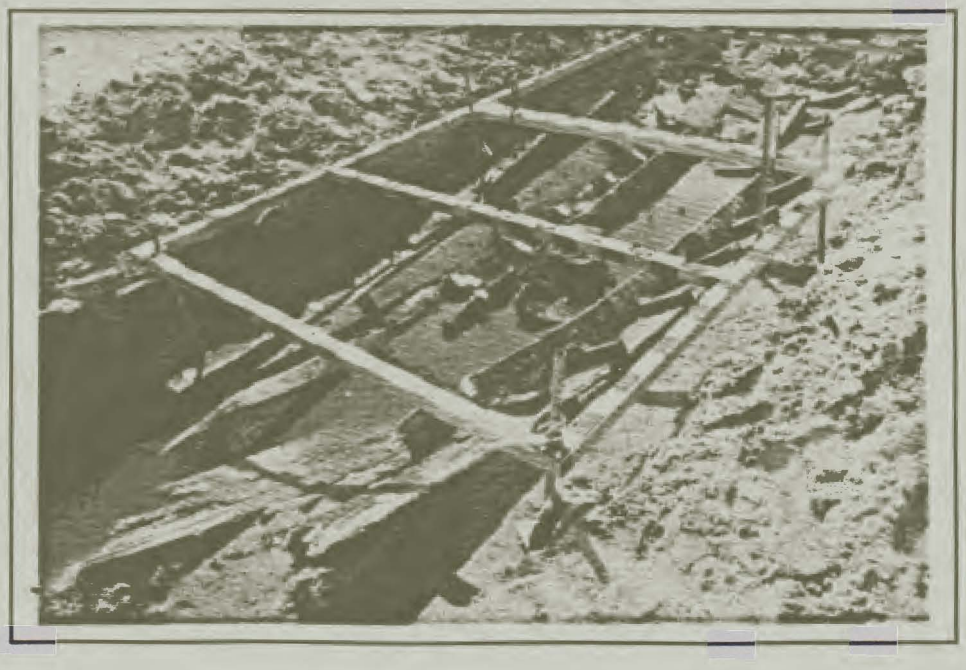
By Christopher Amer

A preliminary examination of the remains of a small wooden boat discovered on the foreshore of Hunting Island State Park was conducted by the Institute's Underwater Archæology Division staff in 1987 after the wreck was exposed by high tides and storm activity. Since then, the site has continued to deteriorate through normal wave action, storm activity, and the hands of collectors. The boat's pump tube was removed by a collector during a period when the site was exposed in the winter of 1988-1989. Initial observations led to the conclusion that the wreck is that of a seven meter long (approximately 23 feet) fishing boat with a "live well."

Historical references recording a boat being wrecked in that location have not been found. Research into the nineteenth century fishing industry on the Atlantic coast has revealed much contemporary literature on the industry as well as descriptions of, and references to, the types of vessels used. However, few examples of "welled" fishing vessels exist; the smack *Emma C. Berry* at Mystic Seaport is a notable example. According to David Baumer, who has done extensive research on the subject, this site is possibly the only known welled fishing boat to be recorded in an archæological context.

Plans were made to relocate the wreckage and record the remaining structure of the wreck, particularly that of the live well, in the spring of 1991 when a four-person team from the Underwater Archaeology Division worked for three days at the site. Of the seven meter long boat examined in 1987, only a four and one half by two meter section of the central port side remained. This section, which was lying horizontally, was fairly intact

(Continued on p. 2)



Right:
Excavation of the nineteenth century fishing vessel using a two by two meter grid. Structural components and artifacts found among the wreckage were recorded

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up to the gunwale. Working against the encroaching tide, the crew was afforded less than five hours per day during which the site was relatively dry. During the brief time allowed, the crew tagged timbers with sequentially numbered plastic tags, triangulated, measured, and photographed loose timbers and other artifacts in situ , and prepared the site for mapping. A levelled two by two meter grid was used to map the site in plan, and from which elevations of hull components were taken. Using this information a site plan was produced which includes a plan view, inboard elevation of the extant port side, and hull curvatures at each of the frames.

The fieldwork results indicate tat the Hunting Island Vessel was fitted with a decked live well spanning seven frames in the middle third of the vessel's seven meter length. The central three floor timbers within the well were single timbers, as at the vessel's extremities. Elsewhere however, the boat was framed with double floor timbers sistered together to increase each frame's sided dimension. Watertight bulkheads, which once extended from floor timber to deck beam, were placed 2.58 meters apart and defined the fore and aft extent of the well. Each bulkhead was 7.6 centimeters thick. The boat's bilge pump was placed against the aft side of the well's aft watertight bulkhead. Holes in the hull planks allowed sea water to enter and circulate within the live well. All that remains of the well structure now are the holes and a number of loose timbers whose function has yet to be determined.

A pulley block, a single sheave, and some lengths of hemp rope found near the forward end of the well indicate the presence of running rigging and hint at a possible location of a mast. Several concreted iron artifacts may be hull fittings or artifacts associated with standing rigging. Cobbles, 20 to 45 centimeters in diameter, found within and aft of the well location, suggest this was the method of ballasting the boat. The vessel's rig could not be determined from the available evidence. However, many of the smacks used in the offshore fishery industry during the nineteenth century were either sloop or schooner rigged.

The well area also contained two ceramic sherds and a number of iron artifacts, including two pots associated with food preparation. These indicate a late eighteenth or early nineteenth century provenance, while the presence of the live well on the wreck suggests a period of use after the 1830s. The presence of a live well also suggests that the wreck was a "well smack," a type of fishing vessel which incorporated a live well. The live well was a new development in the American east coast market fisheries during the 1830s to 1840s that allowed the catch to remain alive during transportation to market thereby ensuring a fresh product. These vessels were an integral part of the southern offshore hook and line fisheries, which supplied fresh fish and seafood to southern Atlantic coastal markets from the 1830s through the latter half of the nineteenth century. Charleston and Savannah were the largest of the southern Atlantic coastal markets which were controlled by Connecticut fishermen, who spent their winters fishing for these and other southern markets. Before the Civil War, markets in these two centers received virtually all the catch from southern Atlantic commercial fishing to keep a steady supply of fresh fish for the southern labor force then being employed in agriculture. By the 1880s Charleston had become the principal port for the southern offshore fishery. The industry was also undergoing a small boom in the South as live wells were the most efficient means of storing fish. However, as ice was becoming commonly available during the latter quarter of the nineteenth century, and at a steadily lower price than before, keeping the catch on ice slowly became the preferred method of transporting fish rather than keeping them alive .

In the southern market fisheries there were two principal types of fishing; offshore or from 10 to 20 miles out, and shore fisheries in the rivers, sounds and tidal marshes. These methods necessitated the use of specific types of vessels especially suited to the environment in which they were used. For offshore use the smack was the principal vessel. These sailing boats, which varied from 10 to 30 tons generally were fitted with a live well and called a well smack. Although the origin of the well smacks lies along the New England shores, the influence of these vessels spread southward and they were, no doubt, copied by local shipwrights and constructed of local materials. Unlike the offshore fishing craft, the boats in use for the shore fisheries were varied, using traditional area small craft types, including the dugouts often fitted with live wells.

Live wells, used in fishing smacks of the American market fisheries on the east coast, were generally of two types, the "decked well," and the "box well." Both types involved having a watertight structure within the hull of the vessel which allowed seawater to freely enter through holes drilled in the bottom of the boat, thereby enabling the fish to remain alive during the trip to market. Decked wells were characterized by having a watertight bulkhead at either end, with a deck laid over them. Box wells generally were pyramidal in shape and were not decked.

Having established the vessel's function, and a time period during which the boat could have been used, further questions need to be addressed. First, was this vessel built along the shores of New England as the majority of these vessels were, or was she crafted of local timber by local shipwrights? Species identification of the hull timbers, when complete, may provide an answer. Second, how did the vessel arrive at its present location? Even 40 years ago the shoreline of Hunting Island was more than 100 meters seaward of its present location. During the nineteenth century it would certainly have been even farther seaward. Yet the wreck lies only 30 meters from the present-day dunes. Did the boat come to an untimely demise as the presence of artifacts associated with day-to-day shipboard life suggests, possibly at the hands of a hurricane like the "Great Storm" of 1893 which deposited a trio of lumber carriers along the South Carolina coast? Or was it dragged into what was then the interior of the island and abandoned? Perhaps we'll never know. Or perhaps the answer lies with the rest of the wreck which is no doubt now buried elsewhere in the shifting sands of this barrier island.

MORE COMPLETE RESULTS OF THIS PROJECT WILL BE PUBLISHED IN THE CUA/ SHA 1991 JAMAICA PROCEEDINGS. IF YOU NEED MORE INFORMATION, CONTACT CHRISTOPHER AMER AT (803)777-8170